

HIV1LAI (DP-178; SEQ ID NO.:1)	YTSLIHSLIEESQNQKEKNEQELLELDKWASLWNWF
HIV1SF2 (DP-185; SEQ ID NO.:3)	YTNTIYTLIEESQNQKEKNEQELLELDKWASLWNWF
HIV1RF (SEQ ID NO.:4)	YTGIIYNLLEESQNQKEKNEQELLELDKWANLWNWF
HIV1MN (SEQ ID NO.:5)	YTSLIYSLLEKSQTQKEKNEQELLELDKWASLWNWF
HIV2ROD (SEQ ID NO.:6)	LEANISKSLEQAQQKEKNMYELQKLNWDIFGNWF
HIV2NIHZ (SEQ ID NO.:7)	LEANISQSLEQAQQKEKNMYELQKLNWDVFTNWL
DP180 (SEQ ID NO.:2)	SSESFTLLEQWNNWKLQLAEQWLEQINEKHYLEDIS
DP118 (SEQ ID NO.:10)	QQLLDVVKRQQEMLRLTVWGTKNLQARVTAIEKYLKDQ
DP125 (SEQ ID NO.:8)	CGGNLLRAIEAQQHLLQLTVWGIKQLQARILAVERYLKDQ
DP116 (SEQ ID NO.:9)	LQARILAVERYLKDQQQ

FIG.1

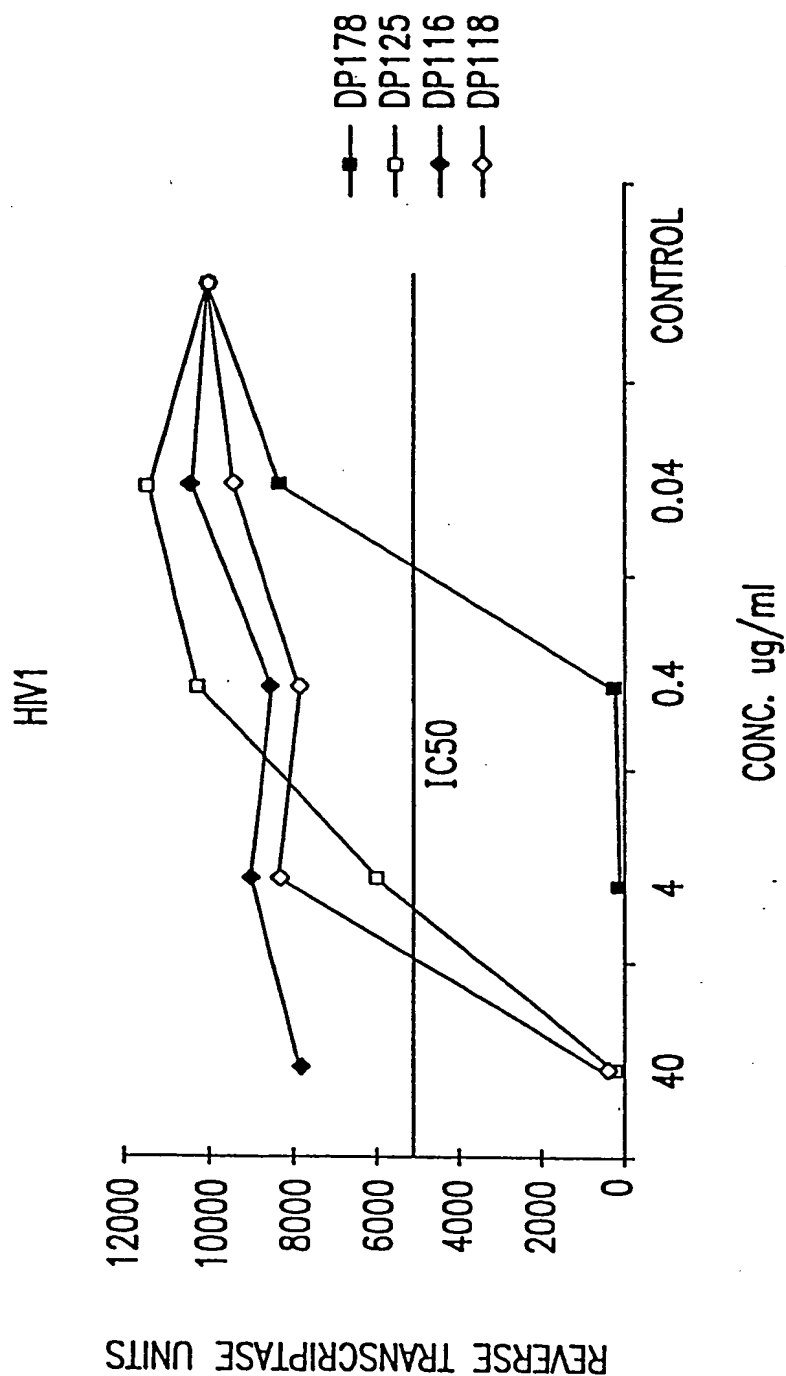


FIG.2

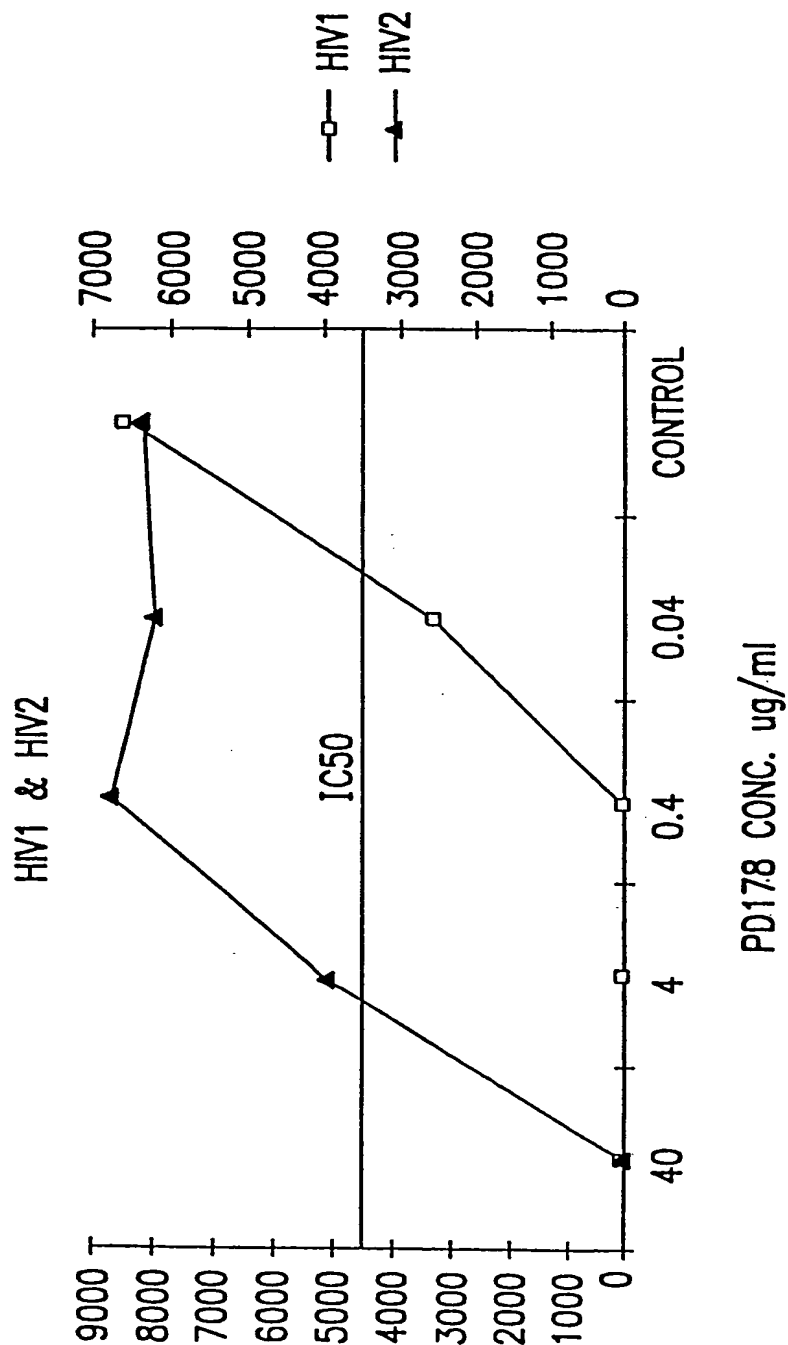


FIG.3



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

Number of Syncytia/well: concentration in $\mu\text{g/ml}$ (micrograms/ml)									
DP178	10	5	1	0.2	0.1	0.05	0.025	0.0125	Control
<i>Syncytia</i>									
HIV1LAT	0	0	0	0	0	0	0	0	67
HIV1MN	0	0	0	0	0	ND	ND	ND	34
HIV1RF	0	0	0	0	0	ND	ND	ND	65
HIV1SF2	0	0	0	0	0	ND	ND	ND	58
DP125	10	5	1	0.2	0.1	0.05	0.025	0.0125	Control
<i>Syncytia</i>									
HIV1LAT	0	0	54	69	80	75	79	82	67
HIV1MN	0	0	30	36	ND	ND	ND	ND	34
HIV1RF	0	0	67	63	ND	ND	ND	ND	65
HIV1SF2	0	0	9	66	ND	ND	ND	ND	58
DP116	10	5	1	0.2	0.1	0.05	0.025	0.0125	Control
<i>Syncytia</i>									
HIV1LAT	75	ND	ND	ND	ND	ND	ND	ND	67
HIV1MN	35	ND	ND	ND	ND	ND	ND	ND	34
HIV1RF	81	ND	ND	ND	ND	ND	ND	ND	65
HIV1SF2	81	ND	ND	ND	ND	ND	ND	ND	58

FIG.4A

DP180	40	20	10	5	2.5	1.25	0.625	0.3125	Control
<i>Syncytia</i>									
HIV1LAT	50	>45	>45	>45	>45	>45	>45	>45	58
DP185	40	20	10	5	2.5	1.25	0.625	0.3125	Control
<i>Syncytia</i>									
HIV1LAT	0	0	0	0	0	0	0	ND	60

FIG.4B



<u>HIV1</u>								
Number of Syncytia/well: concentration in ng/ml (nanograms/ml)								
DP178	20	10	5	2.5	1.25	0.625	0.3125	Control
<u>Syncytia</u>								
HIV1	0	0	0	0	0	14	20	48
DP116	20	10	5	2.5	1.25	0.625	0.3125	Control
<u>Syncytia</u>								
HIV1	ND	48	ND	ND	ND	ND	ND	ND
<u>HIV2</u>								
Number of Syncytia/well: concentration in μ g/ml (micrograms/ml)								
DP178	20	10	5	2.5	1.25	0.625	0.3125	Control
<u>Syncytia</u>								
HIV2	50	54	55	57	63	77	78	76
DP116	20	10	5	2.5	1.25	0.625	0.3125	Control
<u>Syncytia</u>								
HIV2	ND	58	ND	ND	ND	ND	ND	ND

FIG.5



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

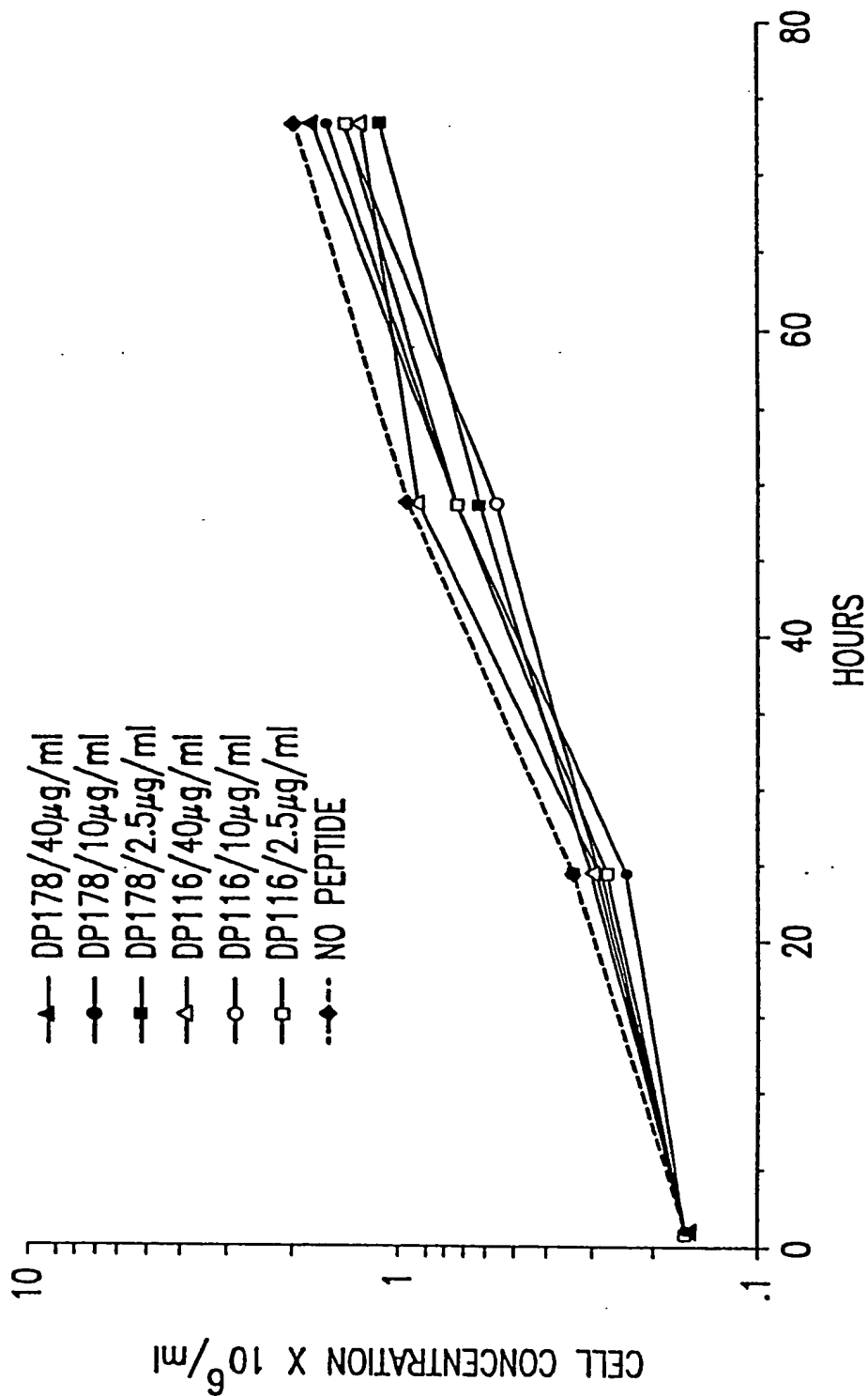


FIG.6

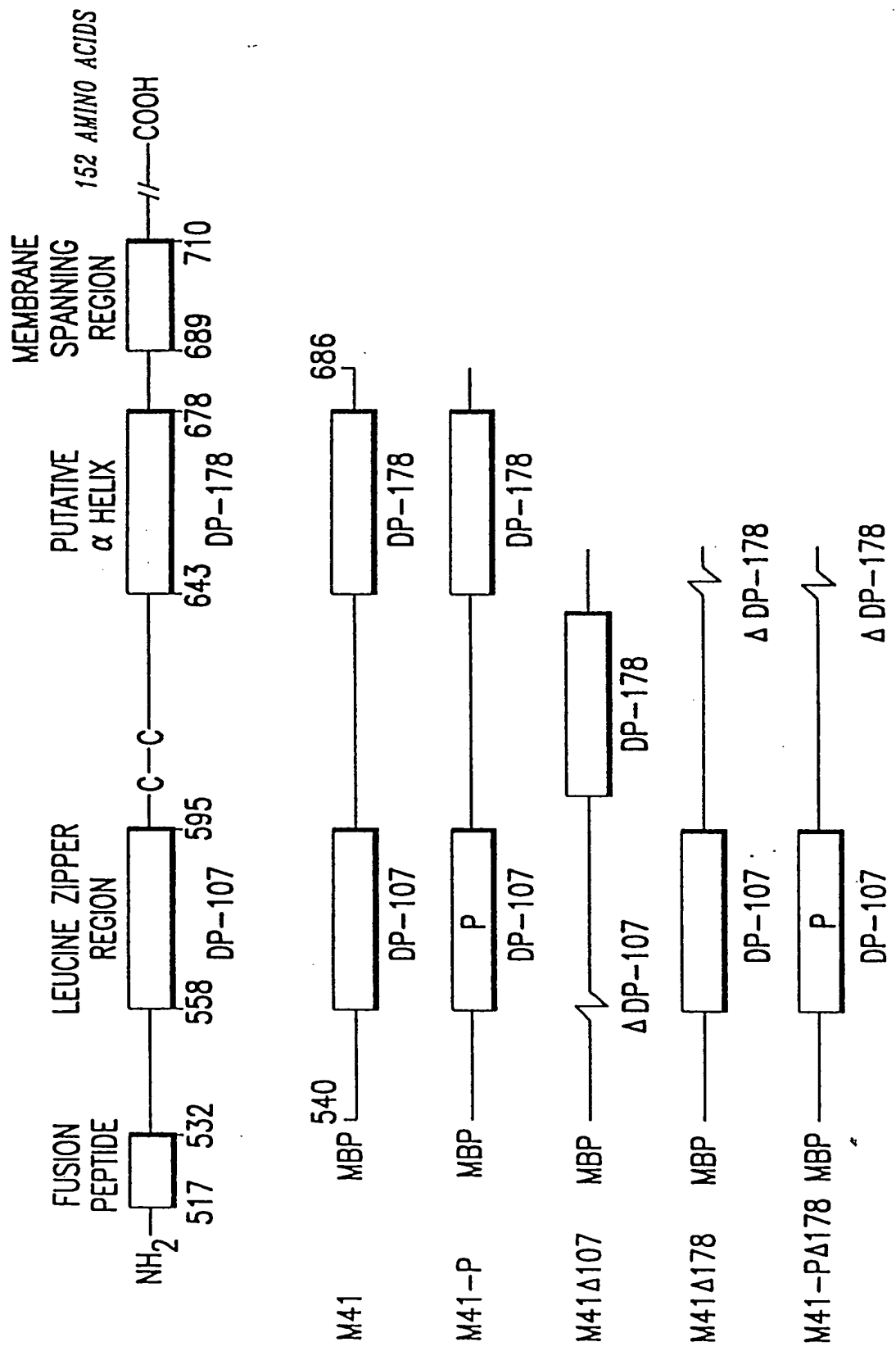
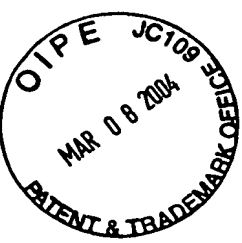


FIG.7

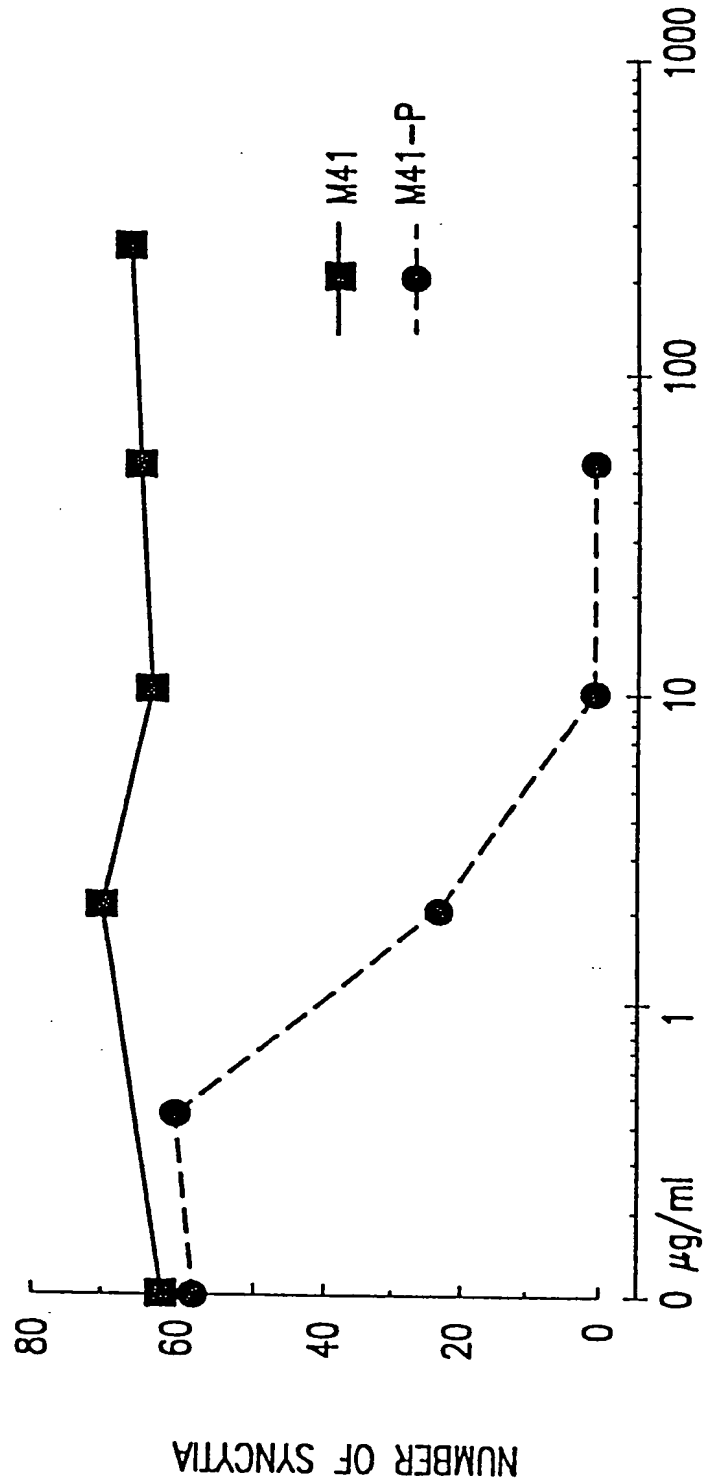
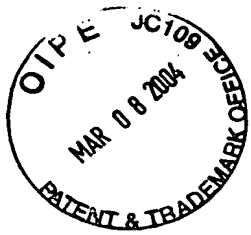


FIG.8



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

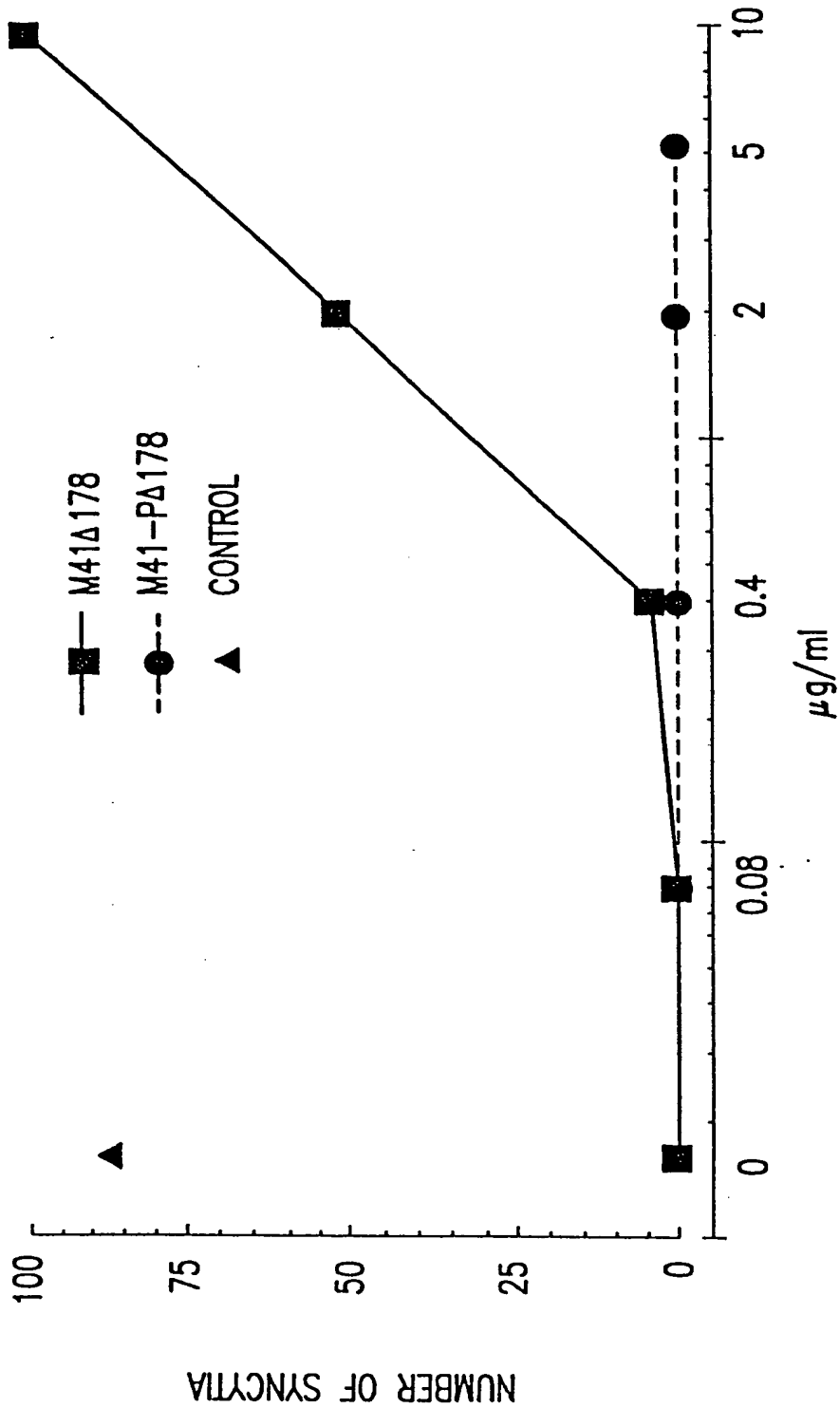


FIG.9

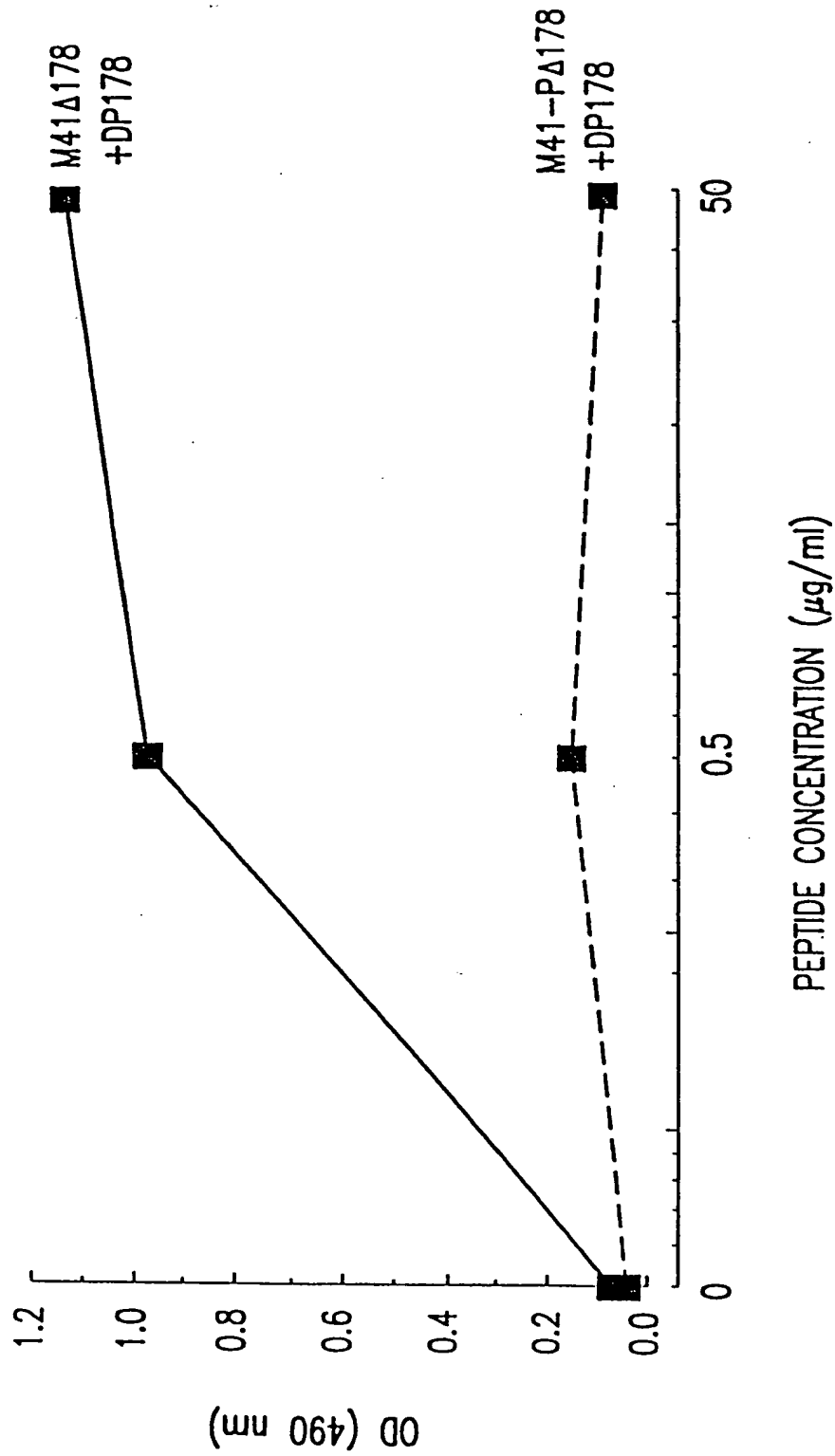


FIG.10

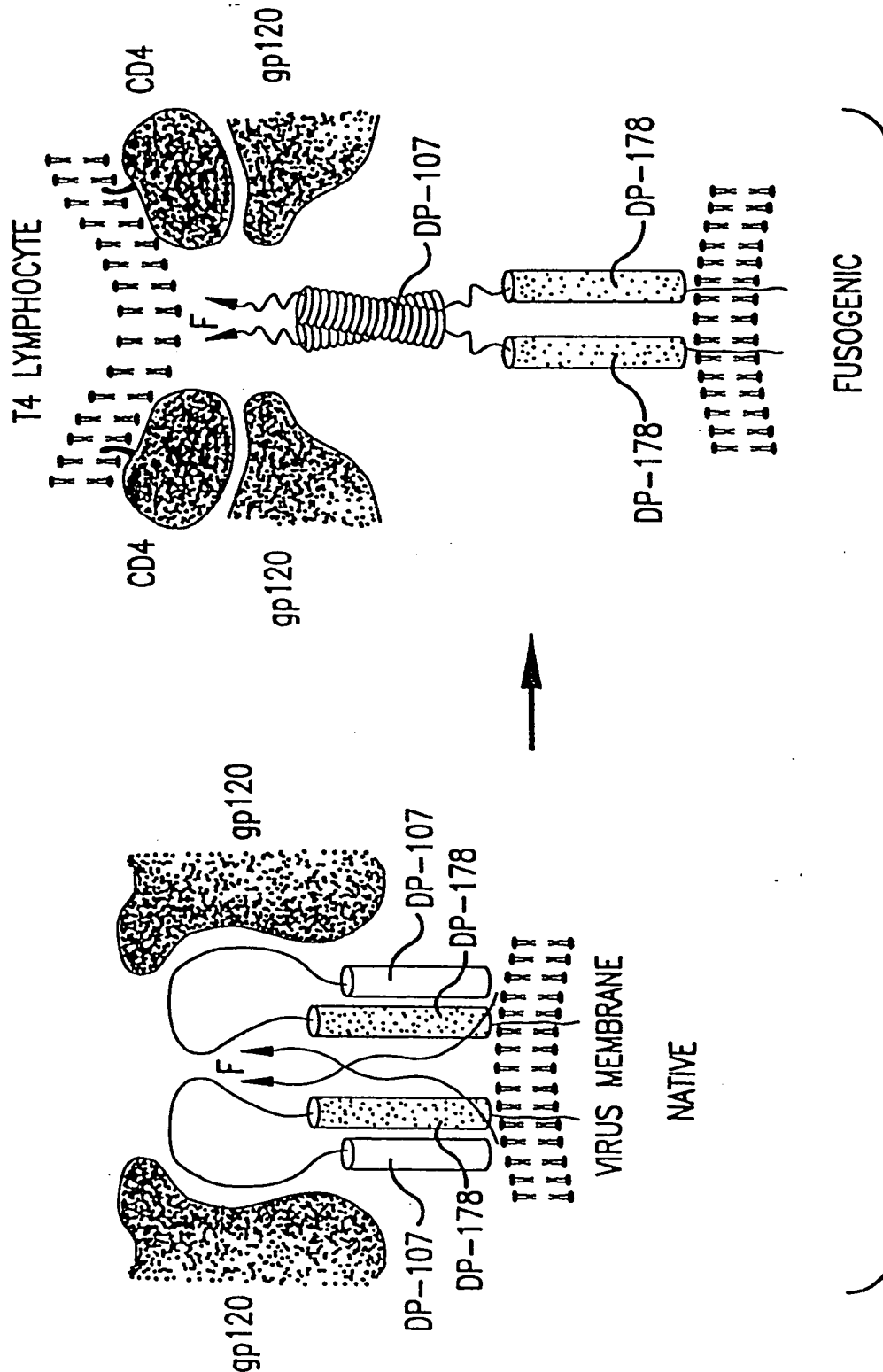


FIG.11A



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

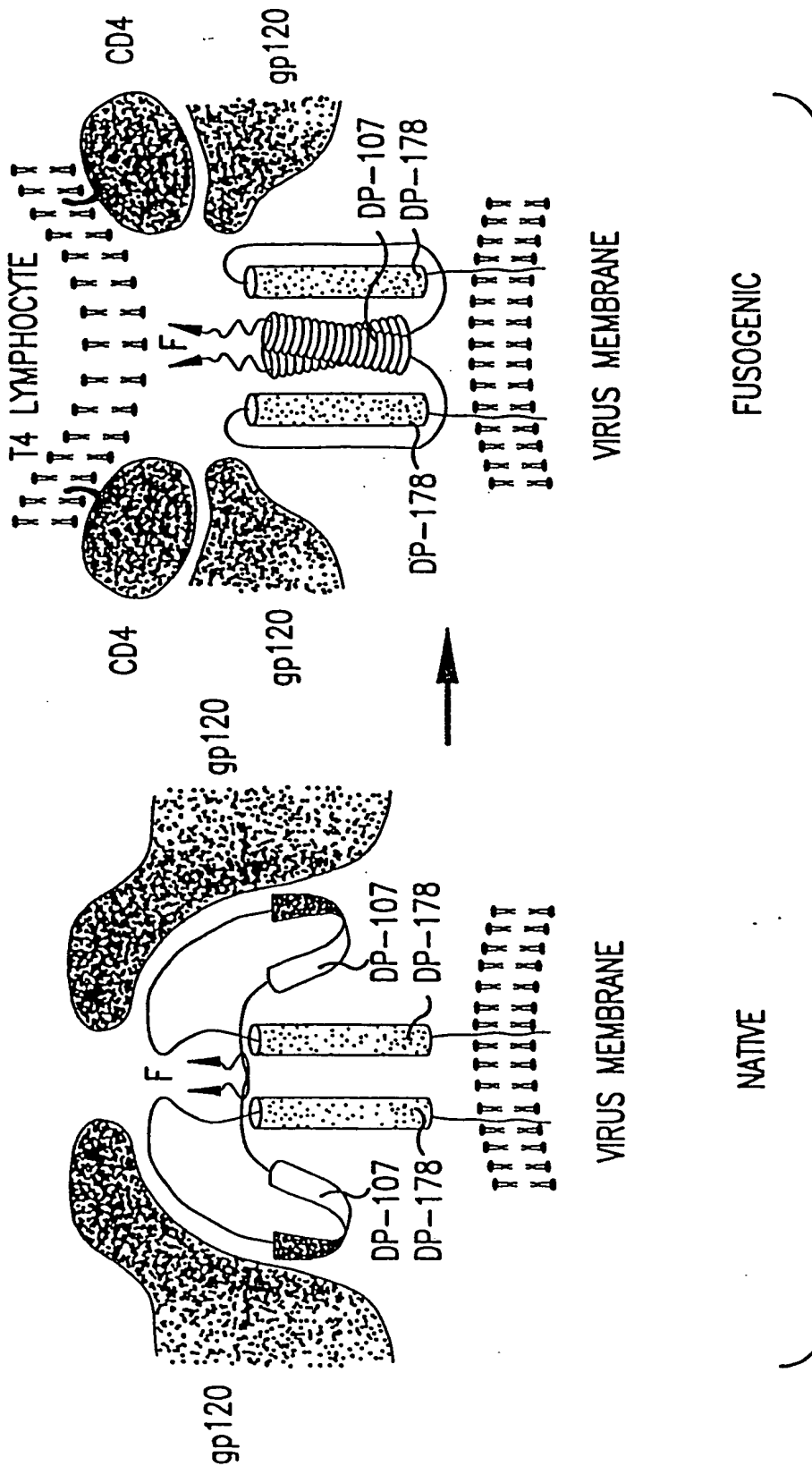


FIG. 11B



Sequence	Positions												Motifs	
	A	D	A	D	A	D	A	D	A	D	A	D		
GCN4 (gcn4 yeast)	M	K	Q	L	L	E	D	K	V	E	E	L	L	{LMNV} {CFGIMPTW}
C-FOS (fos_human)	T	D	T	L	Q	A	E	T	D	Q	L	L	L	{IKLT} {CFGHIMPRVWY}
C-JUN (lap1_human)	I	A	R	L	E	E	K	V	K	T	L	K	A	{AILNV} {CDFGHILPWY}
C-MYC (myo_human)	E	Q	K	L	I	S	E	E	D	L	L	E	K	{ELR} {ACFGIPVWY}
FLU LOOP 36	I	E	K	T	N	E	K	F	H	Q	I	E	K	{FILTV} {ACFLMPTWY}

FIG.12



Sequence	Positions												Motifs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
	A	D	A	D	A	D	A	D	A	D	A	D	A	D																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
DP-107 (env_hv1bru)L1=D	N	N	L	R	A	I	E	A	Q	H	L	L	Q	L	Q	A	R	I																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			</

FIG.13



Sequence	Positions												Parent Motif	Hybrid Motif
	A	D	A	D	A	D	A	D	A	D	A	D		
DP-107 (env_hv1bru)L1=D	N	N	L	R	A	I	E	A	Q	H	L	L	[ILQTV] {CDFIMPST}	
DP-107 (env_hv1bru)L2=D	N	N	L	R	A	I	E	A	Q	H	L	L	[EKLNOV] {CFKAPS}	
DP-178 (env_hv1bru)Y1=A	Y	T	S	L	I	H	S	L	I	E	S	Q	[EFKLCHY] {CFGAPRVY}	
DP-178 (env_hv1bru)Y1=D													[EFILNDSHY] {CFGAPRVY}	[EFIKLNGSTWHY] {CFAP}
FLU LOOP 36	I	E	K	T	N	E	K	F	H	Q	I	E	[FILTV] {ACFLMPTWH}	

FIG.16



Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

Sequence	Positions												Parent Motif	Hybrid Motif		
	A	D	A	D	A	D	A	D	A	D	A	D				
GCN4 (gcn4 yeast)	M	K	Q	L	E	D	K	V	E	E	L	S	K	N	[LNAV] {CFGIMP TH }	[EFIKLANQ ^{TVWY}] {CFMP}
DP-107 (env_hv1bru) L1=D	N	N	L	L	R	A	I	E	A	Q	H	L	L	Q	[ILOTV] {CDFIMP ST }	
DP-178 (env_hv1bru) Y1=A	Y	T	S	L	I	M	S	L	I	E	E	S	Q	N	[EFKLQWY] {CFGMPRVY}	
GCN4 (gcn4 yeast)	M	K	Q	L	E	D	K	V	E	E	L	S	K	N	[LNAV] {CFGIMP TH }	[EFILNQRSTWY] {CFMP}
DP-107 (env_hv1bru) L1=D	N	N	L	L	R	A	I	E	A	Q	H	L	L	Q	[ILOTV] {CDFIMP ST }	
DP-178 (env_hv1bru) Y1=D	Y	T	S	L	I	H	S	L	I	E	E	S	Q	N	[EFILNQS ^{WY}] {CFGMPRVY}	
GCN4 (gcn4 yeast)	M	K	Q	L	E	D	K	V	E	E	L	S	K	N	[LNAV] {CFGIMP TH }	[EFKLANQWY] {CFMP}
DP-107 (env_hv1bru) L2=D	N	N	L	L	R	A	I	E	A	Q	H	L	L	Q	[EKLNOV] {CFKAPS}	
DP-178 (env_hv1bru) Y1=A	Y	T	S	L	I	H	S	L	I	E	E	S	Q	N	[EFKLQWY] {CFGMPRVY}	
GCN4 (gcn4 yeast)	M	K	Q	L	E	D	K	V	E	E	L	S	K	N	[LNAV] {CFGIMP TH }	[EFIKLANQS ^{WY}] {CFMP}
DP-107 (env_hv1bru) L2=D	N	N	L	L	R	A	I	E	A	Q	H	L	L	Q	[EKLNOV] {CFKAPS}	
DP-178 (env_hv1bru) Y1=D	Y	T	S	L	I	H	S	L	I	E	E	S	Q	N	[EFILNQS ^{WY}] {CFGMPRVY}	

FIG.17



Hybrid Motif

[LMNV] {CFGIMPVW} {CFP}

[ILQTV] {CDFIMPST}

[EKLNV] {CFKAPS}

[EFKLQHY] {CFGMPRVY}

[EFILNDSWY] {CFGMPRVY}

[IKLT] {CFGHIMPVWY}

[AILNV] {CDFGHILPVWY}

[ELR] {ACFGMPVWY}

[FILTV] {ACFLMPTVW}

= {COGHP} {CFP}

Sequence	A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D	Parent Motif					
GCN4 (gcn4 yeast)	M	K	Q	L	E	D	K	I	V	E	E	L	L	S	K	N	Y	H	L	E	N	E	V	A	R	L	K	K	L	[LNAV] {CFGIMPVW}		
DP-107 (env_hv1bru) L1=D		N	N	L	L	R	A	I	E	A	Q	H	L	L	Q	L	T	V	W	G	I	K	Q	L	Q	A	R	I	I	L	[ILOTV] {COFIMPST}	
DP-107 (env_hv1bru) L2=D		N	N	L	L	R	A	I	E	A	Q	H	L	L	Q	L	T	V	W	G	I	K	Q	L	Q	A	R	I	I	L	[EKLNV] {CFKAPS}	
DP-178 (env_hv1bru) Y1=A	Y	T	S	L	I	H	S	L	I	E	S	Q	N	Q	Q	E	K	N	E	Q	E	L	L	E	L	D	K	W	A	S	[EFKLOHY] {CFGMPRVY}	
DP-178 (env_hv1bru) Y1=D		Y	T	S	L	I	H	S	L	I	E	S	Q	N	Q	Q	E	K	N	E	Q	E	L	L	E	L	D	K	W	A	S	[EFILNDSHY] {CFGMPRVY}
C-FOS (fos_human)	T	D	T	L	Q	A	E	T	D	Q	L	E	D	E	K	S	A	L	Q	T	E	I	A	N	L	L	K	E				[IKLT] {CFGHIMPVWY}
C-JUN (lap1_human)	I	A	R	L	E	E	K	V	K	T	L	K	A	Q	N	S	E	L	A	S	T	A	N	M	L	R	E	Q				[AILNV] {COFGHILPVWY}
C-MYC (myo_human)	E	Q	K	L	I	S	E	E	D	L	L	E	K	R	R	E	Q	L	K	H	K	L	E	Q	L	R	N	S				[ELR] {ACFGMPVWY}
FLU LOOP 36	I	E	K	T	N	E	K	F	H	Q	I	E	K	E	F	S	E	V	E	G	R	I	Q	D	L	E	K	Y				[FILTLY] {ACFLMPTVW}

Parent Motif

Positions

FIG.18



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

P-[LIV]-{P}(6)-[LIV]-{P}(6)-[LIV]
P-{P}(1)-[LIV]-{P}(6)-[LIV]-{P}(6)-[LIV]
P-{P}(2)-[LIV]-{P}(6)-[LIV]-{P}(6)-[LIV]
P-{P}(3)-[LIV]-{P}(6)-[LIV]-{P}(6)-[LIV]
P-{P}(4)-[LIV]-{P}(6)-[LIV]-{P}(6)-[LIV]
P-{P}(5)-[LIV]-{P}(6)-[LIV]-{P}(6)-[LIV]
P-{P}(6)-[LIV]-{P}(6)-[LIV]-{P}(6)-[LIV]
P-{P}(7)-[LIV]-{P}(6)-[LIV]-{P}(6)-[LIV]
P-{P}(8)-[LIV]-{P}(6)-[LIV]-{P}(6)-[LIV]
P-{P}(9)-[LIV]-{P}(6)-[LIV]-{P}(6)-[LIV]
P-{P}(10)-[LIV]-{P}(6)-[LIV]-{P}(6)-[LIV]
P-X(1,12)-[LIV]-{P}(6)-[LIV]-{P}(6)-[LIV]
P-X(13,23)-[LIV]-{P}(6)-[LIV]-{P}(6)-[LIV]

FIG.19



Fusion ♡ALLMOTIS♡
Peptide ♡107x178x4♡
♡.....ELGELG A AGSTMGARSM TLTVQARQ ♡LLSGIVQQQ DPI07-NNL

LRAIEAQOHL LOLTWGIKO LOARILAYER YLKDO-DPI07 QLLG ♡♡ IWGC

 ♡107x178x4♡
 ♡ALLMOTIS♡ *LVS Coiled-Coil*
SGKLICT TAVP ♡WNASWS NKSLEQIWNN MTWM *E ♡WDREINN DPI78-

YTSLIHSL IEESONQOEK NEOELLELDK* WASLWNWF-DPI78 NI

 ♦Transmembrane Region♦
TNWLWYIK ♡ ♦IFIMIVGGLVGLRIVEAVLSIV NRVQGYST ♡ PL

 ♡P23LZIPC♡
SFQTHLPTPR GPDR ♡PEGIEE EGGERDRDRS IRLVNGSLAL IWDDLRLSL ♡ CL

♡ALLMOTIS♡ ♡107x178x4♡
F ♡SYHRLRDLL LIVTRIVELL GRRGW ♡EALKYWWNLLQYWSQ

ELKNSAYSLLNAT ♡ AIAVAEG TDRVIEVVQG A♡ CRAIRHIPR

RVRQGLERIL L

FIG. 20



Fusion ♡ ALLMOTIS ♡
Peptide ♡ 107x178x4 ♡
♡ ELGEL LGVGSAIAS GVA ♡ YSKVLHL EGEYNKIKSA

 ♡ P1&12LZIPC ♡
LLSTNKAYVS LSNGVSVLTS KYLDLKNYD KQ ♡ ♡ LL ♡ PIVNKQ

 ♡ 107x178x4 ♡
SC ♡ SISNIETVI ♡ EFOQKNRLL EITREFSYNAG ♡ VITPVSTMLTNSELLSL

 ♡ P1&12LZIPC ♡
 ♡ ALLMOTIS ♡
INDM ♡ PI ♡ TNDQ KKLMSNNVQI V ♡ RQSYSI ♡ MS IIKEEVLAYV

VQ ♡ LPLYGVID TPCWKLHTSP LCTTNTKEGS NICLTRTDRG WYCDNAGSVS

FFPQAETCKV QSNRVFCDTM NSLTLPSEIN LCNVDIFNPK

YDCKIMTSKT DVSSSVITSL GAIVSCYGKT KCTASNKNRG

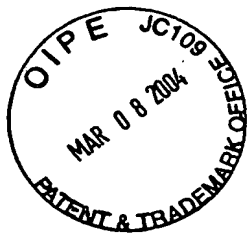
IIKTFSNGCDYVSNKGMDTV SVGNTLYYVN KQEGKSLYVK G

 ♡ P7, 12, & 23LZIPC ♡
 ♡ 107x178x4 ♡ ♡ ALLMOTIS ♡
EPIINFYDPLVF ♡ PSDE ♡ EDASISQYNEKINQSLAF ♡ I ♡ RKSDELL ♡

 ♡ Transmembrane Region ♡
IINVNA ♡ GK STTN ♡ IMITTIIVIVILLS LIAVGLLLY ♡ C ♡

KARSTPVTLS KDQLSGINNI AFSN

FIG. 21



Fusion
Peptide ♥ALLMOTIS♥ ♣107x178x4♣
.....ELGFLG ♥AAGTA MGAAA ♣TALTVOSQHLLAGILOQQOKNLLAAY

♣107x178x4♣
EAQ♣ QQM ♣LKLTIWGVKNLNARVTALEKYLEDOARLN♣ AWG♥ CA

LVS Coiled-Coil
♥ALLMOTIS♥ ♣107x178x4♣
WKQVCHTTVP WQWNNRTPDW ♥NNMT *WLE ♣WERQISYLEGNIT

♣107x178x4♣
TOLEEARAQEEKNLD♣ AXOKLSS* WSDFWWS♥ FDF ♣SKWLN ♦ILK

♦Transmembrane Region♦
IGELDYLGIGLRLLYTY♦ XS♣ CIARVRQGYSP LSPQIHHP WKGQPDNAEG

PGEGGDKRKN SSEPWQKESG TAEWKSNEWCK RLTNWCSISS IWLYNS

♥ALLMOTIS♥
♥CLTL LVHLRSAFQY IQYGLGELKA AAQEAVVALA RLAQNAGYQIWL♥

ACRSAYRA IINSPRRVRQ GLEGILN

FIG. 22



Fusion \spadesuit 107x178x4 \spadesuit
Peptide \heartsuit ALLMOTIS \heartsuit \spadesuit LVS Coiled-Coil \spadesuit
.....EAG \heartsuit YYL AGVALGVATA AQITAGIALHQ \spadesuit *SNLNAQAIQ

SLRTSLEQSNKAIEEIREATOETVIA* VOGVQDY \spadesuit VNNEL \heartsuit VP

\heartsuit ALLMOTIS \heartsuit
 \spadesuit 107x178x4 \spadesuit
 \spadesuit P6 & 12LZIPC \spadesuit
AMQHMSCELVGQRLGLRLLRYYTELLSIFGPSLRD \spadesuit PISA \spadesuit \heartsuit EISIQALIXAL

GGEIHKILEKLGYSGSD \spadesuit MIALESRGIKTKI \heartsuit THVDLPGKF ILSISY

\spadesuit P1 & 12LZIPC \spadesuit
 \spadesuit PTLSEVKGVIVHRLEAV \spadesuit SYNIGSQEWYTTVPRYIATNGYLISNFDDESSCVFVS

ESAICSQNSL YPMSPLLQQC IRGDTSSCAR TLVSGTMGNK FILSKGNIVA

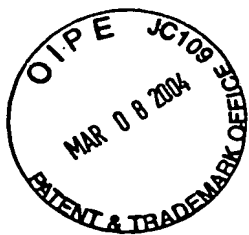
NCASILCKCY STSTINQSP DKLLTFIASD TCPLVEIDGA TIQVGGRQYP

LVS Coiled-Coil
 \heartsuit ALLMOTIS \heartsuit
 \spadesuit P12 & 23LZIPC \spadesuit
DMVYEGKVAL G \spadesuit PAISLD \heartsuit RL*DYGTNLGNALKKLDDAKVLI \spadesuit

\spadesuit Transmembrane Region \spadesuit
DSS \spadesuit NQILETYRRS \heartsuit * SFN \spadesuit EGSLLSVPILSCAL ALLLIYCC \spadesuit

K RRYQQTLKQH TKVDPAFKPD LTGTSKSYVR SL

FIG. 23



Fusion ♥ ALLMOTIS ♥
Peptide ♣ 107x178x4 ♣
♥ EIGAI IGSVALGVA TAAQITAASA LIQANQNAAN ♣ ILRLKESITA

TIEAVHEVTDGLSQLAVA ♣ VG KM ♥ QQFVNDQFNNTAQELDCIKITQQV

♥ ALLMOTIS ♥
GVELNLYLTELT TV FGPQITSPAL ♥ TQLTIQALYNAGGNMDYLLTKLGVG

♣ P1 & 12LZIPC ♣
NNQLSSLIGSGLIT GN ♥ ♣ PILYDSQT QLLGIQVTLP SVGNLNNMRATYLET

LSVST TKGFASALVP KVV TQVGSVI EELDTSYCIE TDLDLYCTRI VTFFPMSPGIY

SCLNGNTSAC MYSKTEGALT TPYMTLKGSV IANCKMTTCR CADPPGIISQ

♥ ALLMOTIS ♥
♣ 107x178x4 ♣
NYGEAVSLID RHSCN ♣ ♥ VLSLD GITLRLSGEF DATYQKNISI LDSQVIVTG

LVS Coiled-Coil ♣ Trans-
NLDISTELGNV NNSISNALDK LEESNSKLDK VNVKLTSTSA ♣ LIT YIA

membrane Region ♣
LTAISLVCGILSLV ♥ ♣ LACYLMY ♣ KQKAQQKTLLWLGNNTLGQMRATTKM

FIG. 24



Fusion ♡ALLMOTIS♡
Peptide ♡107x178x4♡ ♡LVS Coiled-Coil♡
.....EEGGY ♡IG ♡TIALG ♡YATSAQITAAYALVEAKQARSDIEKLKE

AIRDTNKAVOSVQSSIGNLIVAIKSVQ* DYVNKE♡ ♡ IVPSIARLGCEAAG

♡ALLMOTIS♡
♡107x178x4♡
LQLGIALTQH ♡♡YSELTNIFGDNIGSLOEKGIKLOGIASLYRTNITE♡ ♡

♡P5 & 12LZIPC♡
IFTTSTVDKYDIYDLLFTESIKVRVIDVDLNDYSITLQVRL ♡PLLTRLNTQIYR

VDSISYNI♡ QNREWYI♡ PLPSHIMTKGAFLGGADVKECIEAFSSYIC

PSDPGFVLNHEMESCLSGNISQCPRTVVKSDIVPRYAFVNGGVVANCITT

TCTCNGIGNRINQPPDQGVKIITHKECNTIGINGMLFNTNKEGTLAFYTP

♡ALLMOTIS♡
♡107x178x4♡
♡P6 & 23LZIPC♡
NDITLNNSVALD ♡PIDI ♡SIELN ♡KAKSDLEESKEWI♡ RRSNOKL♡

♡Transmembrane Region♡
DSIGNWHQSSTI ♡IIIV♡ LIMIIILEFINVTII♡ IIHVKY♡ ♡ R
IQKRNRVDQN DKPYVLTNK

FIG. 25



Fusion
Peptide
.....GLEGAI AGFIENGWEGMIDGWYGFRIHQNSEGTG

♣107x178x4♣
▼ALLMOTI5▼
LVS Coiled-Coil
*Q ▼AADLKST ♣QAADQINGKLNRVIEKTNEKTHQIEKEESEYEGRIQ

DLEKYVEDTKIDL* WSYNAELLYALENQHTI♣ DLT▼ DSEMKNLFETR

RQLRENAEEMGNGCFKIYHKCDNACIESIRNGTYDHDVYRDEALNNRFQIKG

VELKSGYKDWILWISFAISCFLLCVLLGFIMWACQQRGNIRCNICI

FIG. 26

[illegible]

FIG. 27A



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

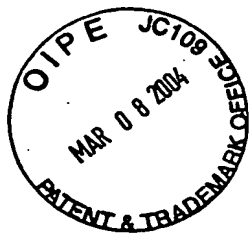
			FUSION ARRAY	
			PURIFIED	
			IC50 (XTT)	
	RSV F2	AV	($\mu\text{g/ml}$)	CD
	T-142	++	39	++
	T-143	++	31	+++
	T-144	+	114	++
	T-145	++	40	+
	T-146	-	281	-
	T-147	-	204	-
	T-148	-	354	-
	T-149	-	336	-
	T-150	-	342	+
	T-151	+/-	116	+
	T-152	+/-	117	++
	T-153	-	280	+
	T-154	+/-	118	++
	T-155	-	253	+

FIG.27B

011-1-SC109
MAR 08 2004
PATENT & TRADEMARK OFFICE

[illegible]

FIG. 27D

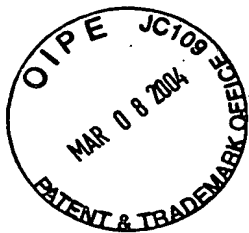


			FUSION ASSAY	
	RSV		PURIFIED	
			IC50 XTT	
	F-107	AV	($\mu\text{g/ml}$)	CD
	T-120	-	204	-
	T-121	-	354	-
	T-122	-	347	-
	T-123	+/-	126	-
	T-124	+	95	-
	T-125	+	84	-
	T-126	+	89	-
	T-127	+	89	-
	T-128	-	206	-
	T-129	-	343	-
	T-130	-	177	-
	T-131	+/-	118	-
	T-132	-	272	-
	T-133	+/-	307	-
	T-134	+/-	187	-
	T-135	+	60	-
	T-136	-	194	-
	T-137	+	99	-
	T-138	++	38	-
	T-139	+	86	+/-
	T-140	-	160	+/-
	T-141	-	204	+/-

FIG.27E

Docket No.: 7872-027-999
Serial No.: 08/487,355
Inventor(s): Barney et al.

RSV	PEPTIDE#	AVG. IC50 (XTT) µg/ml
T-12	VVSL SNGVSVLTSKVLDSL KNYIDKQLL	>500
T-13	LLSTNKAVVSL SNGVSVLTSKVLDSL KNY	>500
T-15	VLHL EGEV NKIKSALLSTNKAVVSL SNG	>500
T-19	LLSTNKAVVSL SNGVSVLTSKVLDSL KNY	>500
T-28	ASGVAVSKVLHL EGEV NKIKSALLSTNKAVVSL SNGV	>500
T-29	SGVAVSKVLHL EGEV NKIKSALLSTNKAVVSL SNG	327
T-30	VLHL EGEV NKIKSALLSTNKAVVSL SNGVSVLTSK	328
T-69	VVSL SNGVSVLTSKVLDSL KNYIDKQLL	292
T-70	VNKIKSALLSTNKAVVSL SNGVSVLTSK	349
T-66	NIDQKKLMSNNVQIVRQQSYSIMSIIKEE	>500
T-576	SISNIEIVIEFQOKNNRLLLEITREFSVNAGVTTTPVS	>100



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

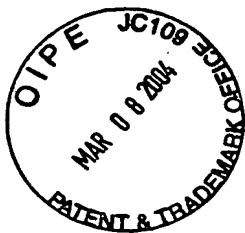
Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

			FUSION ASSAY	
			PURIFIED	
RSV	AV		IC50	CO
T-67	++		($\mu\text{g/ml}$) (XTT)	+/-
F1-178			37	
T-104	+		95	
T-105	+		86	
T-106	-		186	
T-107	++		20	
T-108	+++		6	
T-109	+++		8	
T-110	++		30	
T-111	+++		9	
T-112	+++		8	+/-
T-113	+++		6	+/-
T-114	+++		5	+/-
T-115	+++		6	+/-
T-116	+++		9	+/-
T-117	+++		14	+/-
T-118	+++		5	+/-
T-119	+++		6	+/-

FIG.28B

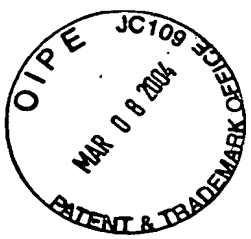
[illegible]

FIG. 28C



HP1V3 DP107-LIKE REGION(F1)																						
	HPF3 107																					
	157																					
	158																					
	159																					
	160																					
	161																					
	162																					
	163																					
	164																					
	165																					
	166																					
	167																					
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	173																					
	174																					
	T-40																					
	175																					
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	177																					
	178																					
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	180																					
	181																					
	182																					
	183																					
	184																					
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	186																					
	187																					
	188																					

FIG.29A



Docket No.: 7872-027-999

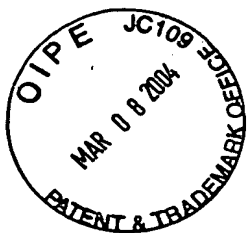
Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

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FIG. 29B



Docket No.: 7872-027-999

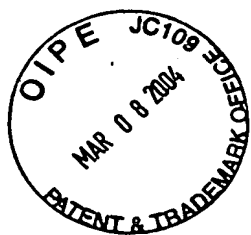
Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

HPV3 107	AV	IC50 (UG/ML)	CD
157	-	574*	+
158	-	146*	+
159	-	707*	+
160	-	536*	+
161	-	390*	+
162	-	403*	+
163	-	123*	+
164	-	512.067*	+++
165	-	742*	-
166	-	540*	-
167	-	215*	-
168	-	680*	-
169	-	137*	-
170	-	456*	-
171	-	437*	-
172	+	63*	-
173	++	30*	-
174	+	56*	++
T-40	+/-		+++
175	+/-	110*	++
176	-	197.75*	+++
177	-	350*	+
178	++	30*	+
179	-	295*	-
180	-	732*	-
181	-	929*	-
182	-	707*	-
183	-	218.50*	++
184	+	67.8*	+++
185	-	542*	-
186	-	613*	-
187	-	152*	-
188	-	669*	-

FIG.29C



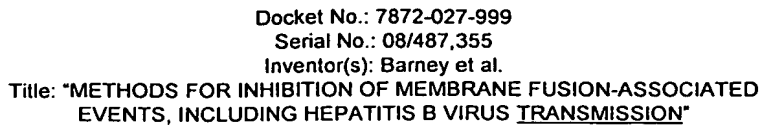
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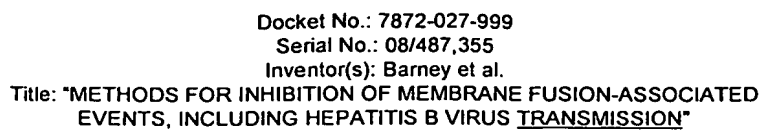
Serial No.: 08/487,355

Inventor(s): Barney et al.

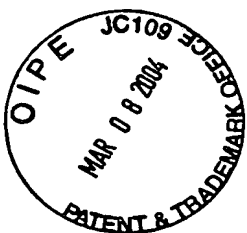
Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

[illegible]





Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

FUSION
PEPTIDE
.....RNKRGV FVLGFLGFLATAGSAMGAAS ♠♥ XXXXAQSRTLLAGIVOOOOO

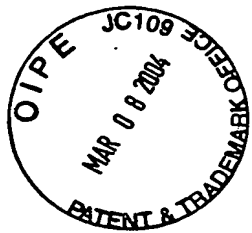
LLDVVKROOELLRLTVWGTKNLOTRVTAIEKYLKDOAQL♠NAWG♥CAF

♥ALLMOTIS♥
*LVS PREDICTED COILED-COIL
RQVCHTTVPWPNASLTPDW *NND ♥TWQEWERKVD FLEENITALLEEAIQQ

♠107x178x4♠
EKNMY ♠ELOKLNSWD* VF♥ GNXXXXXXXXXXXXXXXXXXXXXXXXXXXXX♠

IYIVMLAKLRQGYRPVFSSPPSYFQXTHTQQDPALPTREGKEGDGGEGGNSSWP
WQIEYIHF

FIG. 31



MTRRRVLSVVLLAALACRLGAQTPEQPAPPATTVQPTATRQQTSPFRVCELSSHGDLFRFSSD

♠ 107x178x4♠

IQCPSTGTRENHTEGLLMVFKDNIIPYSF ♠ KVRSYTKIVTNILIYNGWYADSVNRHE♠

EKFSVDSY ETDQMDTIYQ CYNVAKMTKD GLTRVYVDRD GVNITVNLKP TGGLANGVRR

YASQTELYDA PGWLIWYRT RTTVNCLITD MMAKSNPFDF FVTTTGQTV EMSPFYDGKN

KETFHERADS FHVRTNYKIV DYDNRGTNPQ GERRAFLDKG TYTLSWKLEN RTAYCPLQHW

QTFDSTIATE TGKSIHFVTD EGTSSFVTNT TVGIELPDAF KCIEEQVNKT HEKYEAVQD

RYTKGQEAIT YFITSGGLLL AWLPLTPRSL ATVKNLTELT TPTSSPPSSP SPPAPSAARG

STPAAVLRRR RRDAGNATTP VPPTAPGKSL GTLNNPATVQ IQFAYDSLRR QINRMLGDLA

RAWCLEQKRQ NMVLRLETKI NPTTVMSSIIY GKAVAAKRLG DVISVSQCVP VNQATVTLRK

SMRVPGSETM CYSRPLVSFS FINDTKTYEG QLGTDNEIFL TTKMTEVCQA TSQYYFQSGN

♠ 107x178x4♠

EIHVYNDYHH FKTIELDGIA TLQTFISLNT ♠ SLIENIDFASLELYSRDEQRASNVFD *LE♠

LVS PREDICTED COILED COIL

TM Potential

GIFREYNFQAQNIAGLRKDLDNAVS* GRNQ FVDGLGELMDSLGSVG QSITN

♣ P12LZIPC♣

TM Potential

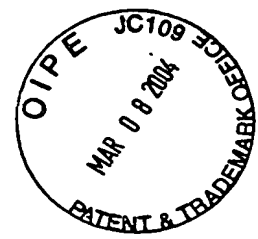
TM Potential

LVSTVGGLFSSLVSGFISF FK N ♣ PFGGMLILVLVAGVVILVISL♣ TRRTRQMS

QQPVQMLYPG IDELAQQHAS GEGPGINPIS KTELQAIMLA LHEQNQEQR AAQRAAGPSV

ASRALQAARDRFPGLRRRRY HDPETAAALL GEAEETF

FIG. 32



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

MMDPNSTSED VKFTPDPYQV PFVQAFDQAT RVYQDLGGPS QAPLPCVLWP VLPEPLPQGQ

LTAYHVSTAP TGSWFSAPQP APENAYQAYA APQLFPVSDI TQNQQTNQAG GEAPQPGDNS

TVQTAAAVVF ACPGANQGQQ LADIGVPQPA PVAAPARRTR KPQQPESLEE CDSELEI

@DNA BINDING@

♠107x178X4♠

+DIMERIZATION+

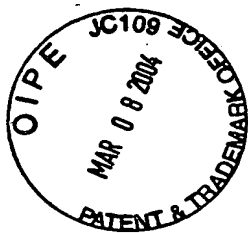
@KRY KNRVASRKCRAK

♠EK@ Q

+LLOHYREVAAAKSSENDRLRLLLKQ♠

MCPSLDVD+ SI IPRTPDVLHE DLLNF

FIG. 33



FUSION
PEPTIDE
FAG

♥ALLMOTI5♥

LVS COILED-COIL♥VVLAGAALGVATAAQITAGIALHQSM*NSQAIDNLRASLETTN

QAIEAIROAGOEMI*LAVQGVQDYINN♥ ELIPSMNQLSCDLIGQKLGLKLLRYTT

♣P23LZIPC♣

♣P6,12LZIPC♣

♠107X178X4♠

♥ALLMOTI5♥

EILSLFGPSLRD ♣PISA ♠♥EISIQLSYALGGDINKV♣ LEKLGYSGGDL♣

♣P1,12LZIPC♣

LGILES♠ RGIKARI♥ THVDTESYFIVLSIAY ♣PTLSEIKGVIVHRLEGV♣ SY

NIGSQEWYTTVPKYVATQGYLISNFEDESSCTFMPEGTVC SQNALYPMSPDLLQECL

RGSTKSCARTLVSGSFGNRFILSQGNLIANCASILCKCYTTGTIINQDPDKILTYIAA

♣P23LZIPC♣

♣P12LZIPC♣

♥ALLMOTI5♥

LVS COILED-COIL

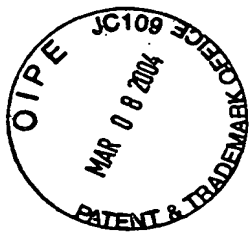
DHCPVVEVNGVTIQVGSRRYPDAVYLHRIDLGP ♣P ♥IS *LERLDVGTNLGN

♦TRANSMEMBRANE REGION♦

AIAKLEDAKELL♣ ESSDOI*L♣ RSMK ♦GLSSTSIVYILI♥ AVCLGGLIGIP

ALICCC♦ RGRCNKKGEQVGMSRPGLKPDLTGTSKSYVRSL

FIG. 34



Pre S1 and Pre S2

MGQNLSTSNPLGFFPDHQLDPAFRANTANPDWDFNPNKDTWPDANKVGAGAFG
LGFTPPHGGLLGWSPQAQGILQTL PANPPPASTNRQSGRQPTPLSPPLRNTHPQAM
QWNSTTFHQTLQDPRVRGLYFPAGGSSSGTVNPVLT TASPLSSIFSRIGDPALN

MAJOR SURFACE ANTIGEN(HBs)
FUSION
PEPTIDE

♣P12 & 23LZIPC♣
MENITSG FLG ♣PLL VLQAGFFLLTRILT♣ PQSLDSWWTSLNFLGGTTVCLG

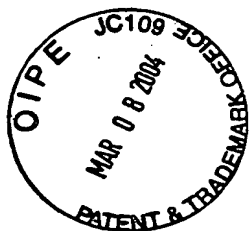
♣P12 & 23LZIPC♣
QNSQSPTSNHSPTSCPPTC ♣PGYRWMCLRRFIIFLLCLIFLLVLLDYQGML♣
PVCPLIPGSSTTSTGPCRTCMTTAQGTSMYPSCCCTKPSDGNCTCIPSSWAFGKF

♦TRANSMEMBRANE REGION♦
LWEWASARFSWLS ♦LLVPFYQWFVGLSPTVWLSVI♦ WMMWYWGPSL

♦TRANSMEMBRANE REGION♦

♦YSILSPFLPLLPIFECLWVYI♦

FIG. 35



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

FUSION ♥ ALLMOTIS ♥ ♠107x 178x4♠
PEPTIDE *LVS COILED COIL
AIQLIPLFVG LGI ♥TTAVSTGAAGLGVS ♠IT *QYTKLSHQLISDV

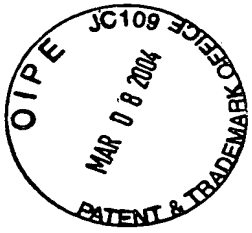
QAISSTIQDLQDOVDSLAEVVLO* NRRGLDLLTAE♠ QGGI♥

CLALQEKCCFYANKSGIVRDKIKNLQDDLERRRRQLIDNPFWTSFHG

FLPYVMPLLGPLLCLLLVLSTFGPIIFNKLMTFIKHQIESIQAKPIQVHYH

TRANSMEMBRANE REGION
RLEQEDSGGSYLTLT.....????????????????????????????.....

FIG. 36



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

MKAQKGFTLI ELMIVVAIIG ILAAIAPGQ

♠107x178x4♠

♥ALLMOTIS♥

♠♥YODYTARTQVTRAYSEYSALKTAAESAILEGKEIVSSA♠ T♥

PK DTQYDIGFT

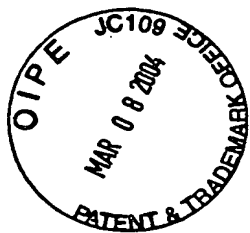
♠107x178x4♠

♥ALLMOTIS♥

♠♥ESTLLDGSGKSOIQVTDNODGTVELVATLGKSSGS♠ AIKGAVITSR♥

KNDGV WNCKITKTPT AWKPNYAPAN CPKS

FIG. 37



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

MNTLQKGFTL IELMIVIAIV GILAAVALPA YQDYTARAQV

SEAILLAEGQ KSAVTEYYLN HGIWP

♠107x178x4♠

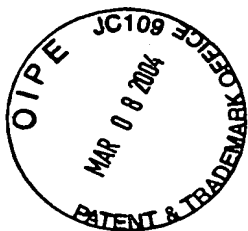
♥ALLMOTIS♥

♠♥KDNTSAGVASSSIKGYVKEVKVENGVVTTAT♠

MNSSNVNKEIQGKKLSLWAKRQDGSVKW♥

FCGQP VTRNAKDDTV TADATGNDGK IDTKHLPSTC RDNFDAS

FIG. 38



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

MKKTLLGSLI LLAFAGNVQA DINTETSGKV TFFGKVVENT

CKVKTEHKNL SVVLNDVGKN SLSTKVNTAM PTPFTITLQN

CDPTTANGTA NKANKVGLYF Y

♠107x178x4♠

♥ALLMOTI5♥

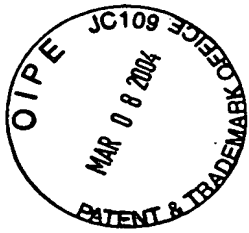
♠♥SWKNVDKENNETLKNEOTTADYATNVNI♠

QLMESNGTKAISVVGKETE♥

DF MHTNNNGVAL NQTHPNNAHI SGSTQLTTGT NELPLHFIAQ

YYATNKATAG KVQSSVDFQI AYE

FIG. 39



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

MNKKLLMNFF IVSPLLLATT ATDFTPVP

♠107x178x4♠

♥ALLMOTI5♥

♠♥LSSNOIUKTAKASTNDNIKDLLDWYSSGSDTFTNS♠♥

EVLDNSL GSMRIKNTDG SISLIIFPSP YYSFAFTKGE KV

♠107x178x4♠

♠DLNTKRTKKSOHTSEGTYIHFOISGVT♠

N TEKLPTPIEL PLKVKVHVKD SPLKYG

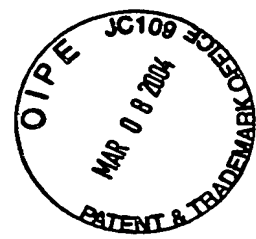
♣P12LZIPC♣

♣PKFDDKKQLAISTLDFEIRHQLTQI♣

HGLYRSSDKT GGYWKITMND GSTYQSDLSK KFEYNTKPP

INIDEIKTIE AEIN

FIG. 40



MKKTAFILLL FIALTLTTSP L ♡ALLMOTI5♡
♡VNG

♠107x178x4♠
LVS PREDICTED COILED-COIL
S ♠EKSEEINEKDLRKKSELORNALSNLROIY YYNEKAITENKESDD♠

QFLENTLL♡ FKG FFTGHPW

♠107x178x4♠
♠YNDLLVDLGSKDATNKYKGKKVDLYGAY♠

YGYQCAGGTPNKTACMYGGVTLHDN NRLTEKKVP INLWIDGKQTTV

♣P12LZIPC♣
♣PIDKVKTSKKEVTVQELDL♣ QARHYLHGK FGLYNSDSFGGKVQ

♣P12LZIPC♣
RGLIVF HSSEGSTVSY DLFDAQQQY ♣P DTLLRIYRDN KTINSENLHI♣

DLYLYTT

FIG. 41



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

♥ALLMOTIS♥

MKKTAFTLLL FIALTLTTSP L ♥VNGS

♠107x178x4♠

♠EKSEEINEKDLRKKSELOGTALGNLKOIYYYNEKAKTENKESHD♠ Q♥

FLQHTILFKG FFTDHSWYND LLVDFDSKDI VDKYKGKKVDLYGAYY

GYQC AGGTPNKTAC MYGGVTLHDN NRLTEKKVPINL WLDGKQNTV

♠107x178x4♠

♥ALLMOTIS♥

♣P12LZIPC♣

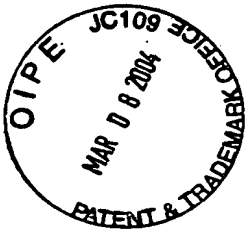
♣P ♥L ♠ETVKTNKKNVTVQELDLOARRYL♣ QEKYNLYN♠

SDVFDGKVQR♥ GLIVF HTSTE

♣P23LZIPC♣

♣PSVNYDLFGAQQYSNTLLRIYRDNKTINSENMIH♣ DIYLYTS

FIG. 42



MKNITFIFILLASPLYANGDRLYRADSRPPDEIKRFRSLMPRGNEYFDRGT

♥ALLMOTI5♥
♥QMNLNLYDHARGTQTGFVRYDDGYV

♠107x178x4♠
♠STSLSLRSAHLAQYILSGYSLTIYIVI♠ ANMFNVNDVISVY♥

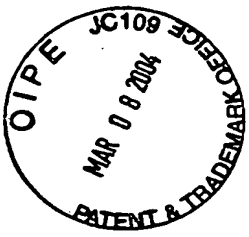
SP HPYEQEVSA LGGIPYSQIYG WYRVNFGVID ERLHRNREYR

DRYYRNLNIA PAEDGYRLAG FPPDHQAWRE EPWIIHAPQG

CGDSSRTITG DTCNE

♥ALLMOTI5♥
♥ETQNLSTIYLREYQSKVKRQIFSDYQSEVDIYNRIRDEL♥

FIG. 43



MMFSGFNADY EASSSRCSSA SPAGDSLSSYY HSPADSFSSM
GSPVNAQDFC TDLAVSSANF IPTVTAISTS PDLQWLVPQA
LVSSVAPSQT RAPHFPGVPA PSAGAYS RAG VVKMTMTGGRA

LVS PREDICTED COILED-COIL
QSIGRRGKVE QLSPEEEEEKR RIRRE *RNKMA AAK

♠107x178x4♠

♥ALLMOTI5♥

♥CRNRRREL ♠TDTLQAETDOLEDEKSALQTEIANLLKEKEKL♥

EFILAAHR* PACKIPDDL GFPEEMSVAS LDLTGGLPEV

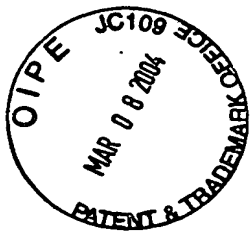
ATPESEEAFT LPLLNDPEPK PSVEPVKSIS SMELKTEPFD

DFLFPASSRP SGSETARVSP DMDLSGSFYA LPLLNDPEPK

PSVEPVKSIS SMELKTEPFD DFLFPASSRP SGSETARVSP

DMDLSGSFYA GSSSNEPSSD SLSSPTLLAL

FIG. 44



SGWESYYKTEGDEEAEEEQEENLEASGDYK YSGRDSLIFLVDASKA
MFESQSEDELTPFDMSIQCIQSVYISKIISSDRDLLAVVFGTEKDKNS
VNFKNIIYVLQELDNPGAKRILELDQFKGQQGQKRFQDMMGHGSDY
SLSEVLWVCANLFSVDVQFKMSHKRIMLFTNEDNPHGNDSAKASRAR
TKAGDLRDTGIFLDMHLKKPGGFDISLFYRDIISIAEDED

♠107x178x4♠

♥ALLMOTI5♥

LVS PREDICTED COILED-COIL

♥LRVH *FEE ♠SSKLEDLLRKVRAKETRKRAISRLKCLKLNKDIV* ISV

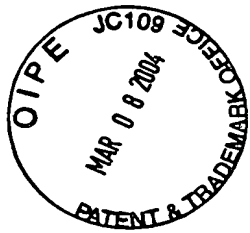
GIYNLVQKAL♥ KPPPIKLYRETN♠ EPVKTKTRTFNTSTGGLLLPSDTR

SQIYGSRQIILEKEETEELKRFDDPGLMLMGFKPLVLLKKHHLRPSLFVYPE
ESLVIGS STLFSALLIKCLEKEVAALCRYTPRRNIPPYFVALVPQEEELDDQK
IQVTPPGFQLVFLPFADDKRKMPFTEKIMATPEQVGKMKAIVEKLRFTYRS
DSFENPVLQQHFRNLEALALDLME

♣PI2LZIPC♣

♣PEQAVDLTLPKVEAMNKRL♣ GSLVDEFKELVYPPDYNPEGKVTKR
KHDNEGSGSKRPKVEYSEEELKTHISKGTLGKFTVPMLEACRAYGLKSG
LKKQELLEALTKHFQD

FIG. 45



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

GGGALSPQHSAVTQGSIIKNKEGMDAKS

♠107x178x4♠

♥ALLMOTI5♥

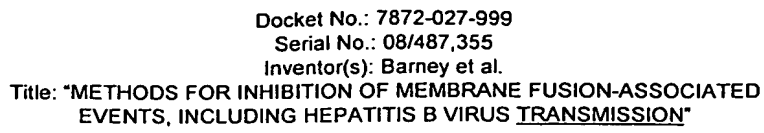
♥♠LTAWSRTLYTFKDVYFVDFTREEWKLLDT♠ AQQIVYRNV
MLENYKNLVSLGYQLT♥ KPDVILRLEKGEEPWLVEREIHQETHPD
SETAFEIKSSVSSRSIFKDKQSCDIKMEGMARNDLWYLSLEE VWKCR
DQLDKYQENPERHLRHQLIHTGEKPYECKECGKSFSRSSHLIGHQKT
HTGEEPYECKECGKSFSWFSHLVTHQRTHTGDKLYTCNQCGKS FVH
SSRLIRHQRTHTGHKPYECPECGKSFRQSTHLILHQRTHVRVRPYECN
ECGKSYSQRSHLVVHHRIHTGLKPFECKDCGKCFSSRSHLYSHQRTHT
TGEKPYECHDCGKSFSQSSALIVHQRIHTGEKPYECCQCGKAFIRKN
DLIKHQRIHVGAETKYCNQCGHIFSQNS

♣P23LZIPC♣

♣PFIVHQIAHTGEQFLTCGNQCGTALVNTSNLIGQTNHI♣ RENAY

FIG. 46

FIG. 47A



[illegible]

FIG. 48A

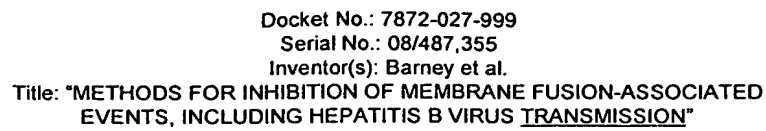
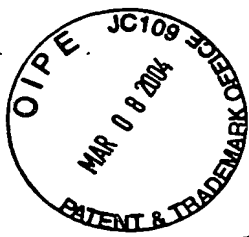


FIG. 49B



Docket No.: 7872-027-999

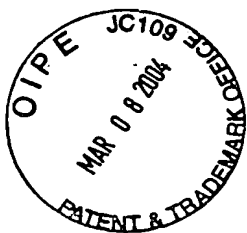
Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

T622	X						I N Y T S L I H S L I E S
T623	28-MER						I N N Y T S L I H S L I E S
T51	28-MER X						I N N Y T S L I G S L I E S
T641	X						N N Y T S L I H S L I E S
T640	X						N Y T S L I H S L I E S
T20							Y T S L I H S L I E S
HIV-1 BRU WALKS C-TERMINAL TO DP78							
		AA#					
		6					
		1 \\\					
		5					
		Pt.					
36-MER		MUTANTS ADDED					
T20							
T639	X						
T638	X						
T637	X						
T636	X						
T635	X						
T634	X						
T633	X						
T632	X						
T631	X						
T630	X						
T629	X						
T628	X						
T627	X						

FIG. 49C



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

HIV-1 BRU 178 CONSTRUCTS, MUTATIONS, TRUNCATIONS																			
										AA#									
										6									
										1 3 11									
										5 3									
										W									
										Y T S L I H S L I E E S Q N Q Q E K N E Q E L L E L D K W A S L W N W F									
										</									

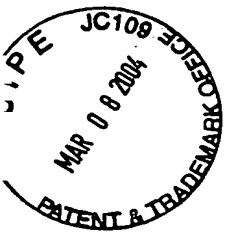
Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

7			
1			
7			
		HIV-1/IIB	
		IC50(ng/ml)	
T4		>400000	
T28		>50000	
T700		>100000	
T715		ND	
T65/T716		ND	
T714		ND	
T712		ND	
T64		ND	
T63		ND	
T62		ND	
T3		3000	
T61/T102		64000	
T217		40000	
T218		25000	
T219		48000	

FIG. 49F

T220	X											L	E	L	D	K	W	A	S	L	W	N	W	F
T221	X											L	E	L	D	K	W	A	S	L	W	N	W	F
T234	X											E	A	A	R	E	A	A	R	E	A	A	R	E
T235	X											R	M	K	Q	L	E	D	K	V	E	E	L	S
T570	X											F	W	N	W	L	S	A	W	K	D	L	E	L
T381	X											R	M	K	Q	L	E	D	K	V	E	E	L	S
T382	X											K	V	E	E	L	S	K	N	Y	H	L	E	N
T677	X											F	W	N	W	L	S	A	W	K	D	L	E	P
T376	X											C	L	E	L	D	K	W	A	S	L	W	N	F
T589	X											C	L	E	L	D	K	W	A	S	L	W	N	F
T377	X											C	L	E	L	D	K	W	A	S	L	W	N	F
T590	X											C	L	E	L	D	K	W	A	S	L	W	N	F
T378	X											C	L	E	L	D	K	W	A	S	L	W	N	F
T591	X											C	L	E	L	D	K	W	A	S	L	W	N	F
T270	X											L	E	L	D	K	W	A	S	L	W	N	W	F
T271	X											L	E	L	D	K	W	A	S	L	W	N	W	F
T272	X											L	E	L	D	K	W	A	S	L	W	N	W	F
T273	X											L	E	L	D	K	W	A	S	L	W	N	W	F
T608	X											L	E	L	D	K	W	A	S	L	W	N	W	F
T609	X											L	E	L	D	K	W	A	S	L	W	N	W	F
T610	X											L	E	L	D	K	W	A	S	L	W	N	W	F
T611	X											L	E	L	D	K	W	A	S	L	W	N	W	F
T612	X											L	E	L	D	K	W	A	S	L	W	N	W	F
T222	X											L	E	L	D	K	W	A	S	L	W	N	W	F
T223	X											L	E	L	D	K	W	A	S	L	W	N	W	F
T60/T224	X											L	E	L	D	K	W	A	S	L	W	N	W	F
T225	X											L	E	L	D	K	W	A	S	L	W	N	W	F
T226	X											L	E	L	D	K	W	A	S	L	W	N	W	F
T227	X											L	E	L	D	K	W	A	S	L	W	N	W	F

FIG. 49G



Docket No.: 7872-027-999

Serial No.: 08/487,355

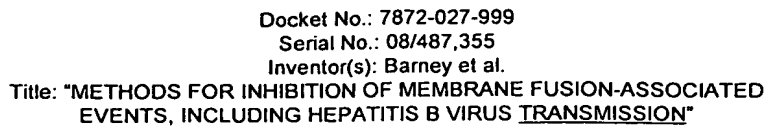
Inventor(s): Barney et al.

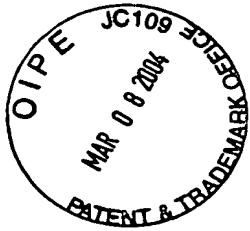
Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

T220	59000
T221	16000
T234	>100000
T235	53000
T570	>100000
T381	89000
T382	190000
T677	6310
T376	>100000
T589	745000
T377	69000
T590	30290
T378	95000
T591	59000
T270	>200000
T271	16000
T272	1000
T273	>100000
T608	>100000
T609	>100000
T610	>100000
T611	70000
T612	>100000
T222	49000
T223	57000
T60/T224	77000
T225	>100000
T226	>100000
T227	>100000

FIG. 49H

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"





Docket No.: 7872-027-999
Serial No.: 08/487,355
Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

Q	N	Q	Q	E	K	N	Q	Q	E	L	L	Q	L	D	K	W	A	S	L	W	N	W	F	T99	56
Q	N	Q	Q	E	K	N	Q	Q	E	L	L	E	L	D	K	W	A	S	L	W	N	W	F	T103	ND
Q	Q	Q	Q	E	K	N	Q	Q	E	L	L	E	L	D	K	W	A	S	L	W	N	W	F	T212	3
Q	N	Q	Q	E	K	N	Q	Q	E	L	L	E	L	N	K	W	A	S	L	W	N	W	F	T213	25
Q	N	Q	Q	E	K	N	Q	Q	E	L	L	E	L	D	K	W	A	S	L	W	N	W	F	T214	19
Q	N	Q	Q	E	K	N	Q	Q	E	L	L	E	L	D	K	W	A	S	L	W	N	W	F	T215	23
Q	N	Q	Q	Q	K	N	Q	Q	Q	L	L	Q	L	D	K	W	A	S	L	W	N	W	F	T216	1000
Q	N	Q	Q	E	K	N	Q	Q	E	L	L	E	L	D	K	W	A	S	L	A	N	A	A	T229	>100000
Q	N	Q	Q	E	K	N	Q	Q	Q	L	L	E	L	D	K	E	A	S	L	W	N	W	F	T230	6
Q	N	Q	Q	E	K	N	Q	Q	Q	L	L	E	L	D	K	W	A	S	L	W	N	W	F	T231	4
Q	N	Q	Q	E	K	N	Q	Q	Q	L	L	E	L	D	K	W	A	S	L	F	N	F	F	T379	0.3
Q	N	L	Q	E	K	N	Q	Q	E	L	L	E	L	D	K	W	A	S	L	W	N	W	F	T701	3
Q	N	Q	Q	E	K	L	E	Q	E	L	L	E	L	D	K	W	A	S	L	W	N	W	F	T702	36
Q	N	Q	Q	E	K	N	Q	Q	Q	L	L	E	F	D	K	W	A	S	L	W	N	W	F	T703	0.5
Q	N	Q	Q	E	K	N	Q	Q	Q	L	L	E	L	D	K	P	A	S	L	W	N	W	F	T704	510
Q	N	Q	Q	E	K	N	Q	Q	Q	L	L	E	L	D	K	W	A	S	P	W	N	W	F	T705	14
Q	N	Q	Q	E	K	N	Q	Q	Q	L	L	E	L	D	K	W	A	S	L	W	N	S	F	T706	68
K	E	L	W	E	Q	Q	E	I	S	I	Q	N	L	H	K	S	A	L	Q	E	Y	W	N	T156	80000
K	E	L	W	E	Q	Q	E	I	S	I	Q	N	L	H	K	S	A	L	Q	E	Y	W		T89	>100000
E	W	L	E	A	L	E	I	E	H	E	K	W	K	L	T	Q	W	Q	S	Y	E	Q	F	T90	>100000

FIG.49L

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

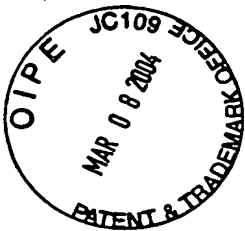
[illegible]

FIG. 50B

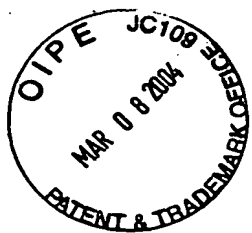
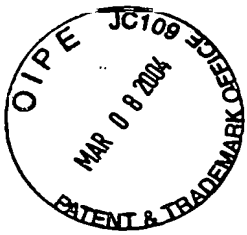
[illegible]

FIG. 51A

[illegible]

FIG. 51B

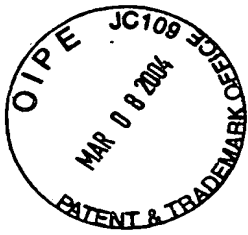


Docket No.: 7872-027-999
Serial No.: 08/487,355
Inventor(s): Barney et al.

Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

RESIDUE	197	L	Q	H	Y	R	E	V	A	A	K	S	S	E	N	D	R	L	R	L	L	L	K	Q	M	C	P	S	L	D	V	D	S	I	I	P	R	T	P	D	V	L	H	E	D	242	45			
T-447	197	L	Q	H	Y	R	E	V	A	A	K	S	S	E	N	D	R	L	R	L	L	L	K	Q	M	C	P	S	L	D	V	D	S	I	I								232	35						
T-448	198	Q	H	Y	R	E	V	A	A	K	S	S	E	N	D	R	L	R	L	L	L	L	K	Q	M	C	P	S	L	D	V	D	S	I	I	P						233	35							
T-449	199	H	Y	R	E	V	A	A	K	S	S	E	N	D	R	L	R	L	L	L	L	L	K	Q	M	C	P	S	L	D	V	D	S	I	I	P	R					234	35							
#	200	Y	R	E	V	A	A	K	S	S	E	N	D	R	L	R	L	L	L	L	L	L	K	Q	M	C	P	S	L	D	V	D	S	I	I	P	R	T			235	35								
T-451	201	R	E	V	A	A	K	S	S	E	N	D	R	L	R	L	L	L	L	L	L	L	K	Q	M	C	P	S	L	D	V	D	S	I	I	P	R	T	P			236	35							
T-452	202	E	V	A	A	K	S	S	E	N	D	R	L	R	L	L	L	L	L	L	L	L	K	Q	M	C	P	S	L	D	V	D	S	I	I	P	R	T	P	D			237	35						
T-453	203	V	A	A	K	S	S	E	N	D	R	L	R	L	L	L	L	L	L	L	L	L	K	Q	M	C	P	S	L	D	V	D	S	I	I	P	R	T	P	D	V			238	35					
T-454	204	A	A	K	S	S	E	N	D	R	L	R	L	L	L	L	L	L	L	L	L	L	K	Q	M	C	P	S	L	D	V	D	S	I	I	P	R	T	P	D	V	L			239	35				
T-455	205	A	A	K	S	S	E	N	D	R	L	R	L	L	L	L	L	L	L	L	L	L	K	Q	M	C	P	S	L	D	V	D	S	I	I	P	R	T	P	D	V	L	H			240	35			
T-456	206	A	K	S	S	E	N	D	R	L	R	L	L	L	L	L	L	L	L	L	L	L	K	Q	M	C	P	S	L	D	V	D	S	I	I	P	R	T	P	D	V	L	H	E			241	35		
T-457	207	K	S	S	E	N	D	R	L	R	L	L	L	L	L	L	L	L	L	L	L	L	K	Q	M	C	P	S	L	D	V	D	S	I	I	P	R	T	P	D	V	L	H	E	D			242	35	
T-458	208	S	S	E	N	D	R	L	R	L	L	L	L	L	L	L	L	L	L	L	L	L	K	Q	M	C	P	S	L	D	V	D	S	I	I	P	R	T	P	D	V	L	H	E	D	L			243	35
RESIDUE	209	S	E	N	D	R	L	R	L	L	K	Q	M	C	P	S	L	D	V	D	S	I	I	P	R	T	P	D	V	L	H	E	D	L	L	N	F						RESIDUE			246	37			
T-459	209	S	E	N	D	R	L	R	L	L	K	Q	M	C	P	S	L	D	V	D	S	I	I	P	R	T	P	D	V	L	H	E	D	L	L									244	35					
T-460	210	E	N	D	R	L	R	L	L	K	Q	M	C	P	S	L	D	V	D	S	I	I	P	R	T	P	D	V	L	H	E	D	L	L	N									245	35					
T-461	211	N	D	R	L	R	L	L	K	Q	M	C	P	S	L	D	V	D	S	I	I	P	R	T	P	D	V	L	H	E	D	L	L	N	F									246	35					

FIG.51C



Docket No.: 7872-027-999

Serial No.: 08/487,355

Inventor(s): Barney et al.

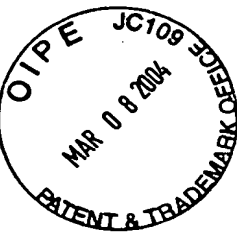
Title: "METHODS FOR INHIBITION OF MEMBRANE FUSION-ASSOCIATED
EVENTS, INCLUDING HEPATITIS B VIRUS TRANSMISSION"

DOMAIN I:

174 P-L-L-V-L-Q-A-G-F-F-L-L-T-R-I-L-T-I-P-Q-S-L-D-S-W-W-T-S-L-N-F-L-G-G-T-T-V-C-L-G-Q-N-S-Q-S-P 219

P-L-L-V-L-Q-A-G-F-F-L-L-T-R-I-L-T-I-P-Q-S-L-D-S-W-W-T-S-L-N-F-L-G-G-T
L-L-V-L-Q-A-G-F-F-L-L-T-R-I-L-T-I-P-Q-S-L-D-S-W-W-T-S-L-N-F-L-G-G-T-T
L-V-L-Q-A-G-F-F-L-L-T-R-I-L-T-I-P-Q-S-L-D-S-W-W-T-S-L-N-F-L-G-G-T-T-V
V-L-Q-A-G-F-F-L-L-T-R-I-L-T-I-P-Q-S-L-D-S-W-W-T-S-L-N-F-L-G-G-T-T-V-C
L-Q-A-G-F-F-L-L-T-R-I-L-T-I-P-Q-S-L-D-S-W-W-T-S-L-N-F-L-G-G-T-T-V-C-L
Q-A-G-F-F-L-L-T-R-I-L-T-I-P-Q-S-L-D-S-W-W-T-S-L-N-F-L-G-G-T-T-V-C-L-G
A-G-F-F-L-L-T-R-I-L-T-I-P-Q-S-L-D-S-W-W-T-S-L-N-F-L-G-G-T-T-V-C-L-G-Q
G-F-F-L-L-T-R-I-L-T-I-P-Q-S-L-D-S-W-W-T-S-L-N-F-L-G-G-T-T-V-C-L-G-Q-N
F-F-L-L-T-R-I-L-T-I-P-Q-S-L-D-S-W-W-T-S-L-N-F-L-G-G-T-T-V-C-L-G-Q-N-S
F-L-L-T-R-I-L-T-I-P-Q-S-L-D-S-W-W-T-S-L-N-F-L-G-G-T-T-V-C-L-G-Q-N-S-Q
L-L-T-R-I-L-T-I-P-Q-S-L-D-S-W-W-T-S-L-N-F-L-G-G-T-T-V-C-L-G-Q-N-S-Q-S

FIG.52A



DOMAIN II:

233 P-G-Y-R-W-M-C-L-R-R-F-I-I-F-L-F-I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I-P-G-S-S-T-T-S-T-G-P-C-R-T-C-M-T-T 290

P-G-Y-R-W-M-C-L-R-R-F-I-I-F-L-F-I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L
G-Y-R-W-M-C-L-R-R-F-I-I-F-L-F-I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P
Y-R-W-M-C-L-R-R-F-I-I-F-L-F-I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V
R-W-M-C-L-R-R-F-I-I-F-L-F-I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C
W-M-C-L-R-R-F-I-I-F-L-F-I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P
M-C-L-R-R-F-I-I-F-L-F-I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L
C-L-R-R-F-I-I-F-L-F-I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I
L-R-R-F-I-I-F-L-F-I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I-P
R-R-F-I-I-F-L-F-I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I-P-G
R-F-I-I-F-L-F-I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I-P-G-S
F-I-I-F-L-F-I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I-P-G-S-S
I-I-F-L-F-I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I-P-G-S-S-T-T
I-F-L-F-I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I-P-G-S-S-T-T-S
F-L-F-I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I-P-G-S-S-T-T-S-T
L-F-I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I-P-G-S-S-T-T-S-T-G
F-I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I-P-G-S-S-T-T-S-T-G-P
I-L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I-P-G-S-S-T-T-S-T-G-P-C
L-L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I-P-G-S-S-T-T-S-T-G-P-C-R
L-L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I-P-G-S-S-T-T-S-T-G-P-C-R-T
L-C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I-P-G-S-S-T-T-S-T-G-P-C-R-T-C
C-L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I-P-G-S-S-T-T-S-T-G-P-C-R-T-C-M
L-I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I-P-G-S-S-T-T-S-T-G-P-C-R-T-C-M-T
I-F-L-L-V-L-L-D-Y-Q-G-M-L-P-V-C-P-L-I-P-G-S-S-T-T-S-T-G-P-C-R-T-C-M-T-T

FIG. 52B